

**REMARKS**

Claims 1-15 are pending in this application. By this Amendment, claims 1, 10, 13 and 15 are amended. No new matter is added. Reconsideration in view of the foregoing amendments and the following remarks is respectfully requested.

An Information Disclosure Statement was filed on October 17, 2003. A separate Information Disclosure Statement is also filed with this Amendment. The Examiner is requested to consider the disclosed information and return initialed copies of the Form PTO-1449 attached to the Information Disclosure Statements.

The Office Action provisionally rejects claims 1-15 under the judicially created doctrine of obviousness-type double patenting over the claims of co-pending Applications No. 10/667,347, 10657,108 and 10/654,432. This rejection is respectfully traversed.

The Office Action states "Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in present application are similar to claims in co-pending application as shown " (emphasis added). Applicant respectfully submits that similarity is not a proper basis for the obviousness-type double patenting rejection. The Patent Office must state how the differences between the claims of the application and the claims of the co-pending applications are obvious from the claims of the co-pending application.

Moreover, Applicant respectfully submits that the claims of this application are patentably distinct from the claims of Applications No. 10/667,347, 10/657,108 and 10/654,432 as each is drawn to different features. For example, claims 1 and 15 recite that an antenna element has a shape in which a bottom side thereof has a straight portion or a substantially straight portion adjacent to a ground pattern. This feature is not obvious from the claims of the co-pending applications.

To require anything further at this point is premature as none of the applications have been allowed.

The Office Action rejects claims 1-8 and 10 under 35 U.S.C. §102(e) over U.S. Patent No. 6,747,605 to Lebaric et al. (Lebaric). This rejection is respectfully traversed.

Claim 1 recites, *inter alia*, that a ground pattern is juxtaposed with the planar antenna element, and that a planar antenna element has a shape in which a bottom side thereof has a straight portion or a substantially straight portion adjacent to a ground pattern. This feature was originally recited in amended claim 10.

Lebaric shows in Fig. 1 dipoles 6A, 8B connected by a feed structure 10, 12 and adjacent to tapered portions 16, 18 of a balun structure 14. However, the bottom side the antenna structured by the dipoles 6A, 8B and the feed structure 10, 12 is not straight or substantially straight.

In the statement with respect to claim 10, the Office Action refers to dipoles 6B, 8B of Lebaric to allegedly correspond to the planer antenna. However, the balun structure 14 is not juxtaposed with the dipoles 6B, 8B. That is, as shown in Fig. 1 of Lebaric, the dipoles 6B, 8B are on the other side of a substrate 5 from the balun structure 14. As described in Applicant's specification at, for example, page 10, lines 28-29, the ground pattern 2 is juxtaposed with the dielectric substrate 7 so as to make an interval of L1 from the dielectric substrate 7. Therefore, the term "juxtaposed" according to the specification has a meaning of being on the same plane with a short distance.

In the Response to Argument section, the Office Action asserts "because, based on Merriam-Webster's dictionary, the 'juxtaposed' means that 'to placed side by side' so Lebaric et al. disclose the balun structure 14 being juxtaposed with the planar antenna element (2, 4, 6,...) as recited in claim 1". However, at least the dipoles 6B, 8B are not juxtaposed with the balun structure 14 because the dipoles 6B, 8B are not "side by side" with the balun structure

14 according to the Patent Office's interpretation of the term "juxtaposed." Further, as held by the CAFC, dictionary definitions are used only if the meaning of a word is not clear from its use in the disclosure, i.e., intrinsic definitions are used before extrinsic.

Even if the balun structure 14 is considered to be juxtaposed with the dipoles 6B and 8B, the dipoles 6B, 8B are not adjacent to the balun structure 14, as recited in claim 1. Therefore, the dipoles 6B, 8B cannot be considered as the recited planer antenna.

Accordingly, Lebaric does not teach or suggest that a planar antenna element has a shape in which a bottom side thereof has a straight portion or a substantially straight portion adjacent to a ground pattern, as recited in claim 1. As such, claim 1 is patentably distinct from the applied art.

Claims 2-8 and 10 are allowable at least for their dependence on allowable base claims, as well as for the additional features they recite.

At least for these reasons, Applicant respectfully requests withdrawal of the rejection.

The Office Action rejects claims 9, 11 and 12 under 35 U.S.C. §103(a) over Lebaric in view of U.S. Patent No. 4,816,835 to Abiko et al. (Abiko). This rejection is respectfully traversed.

Abiko does not overcome the deficiencies of Lebaric with respect to claim 1. As such, claims 9, 11 and 12 are allowable at least for their dependence on allowable base claims, as well as for the additional features they recite.

The Office Action rejects claims 13-15 under 35 U.S.C. §103(a) over Lebaric in view of U.S. Patent No. 6,707,427 to Konishi et al. (Konishi). This rejection is respectfully traversed.

Claim 13 recites the features similar to those of claim 1. As discussed above, Lebaric does not teach or suggest these features. Konishi does not overcome the deficiencies. As such, even combined, Lebaric and Konishi do not teach or suggest every feature of claim 13.

Moreover, the Office Action alleges that the motivation for the combination is to minimize the insertion loss, whereby the assembling ability can be improved thus the high gain can be easily attained. However, neither Lebaric nor Konishi teaches or suggests the motivation. As such, Applicant respectfully asserts that the Patent Office is relying on the hindsight knowledge gained from Applicant's disclosure. As such, the motivation for the combination is improper.

Furthermore, because the coupling between the ground pattern and the antenna is very important in this technical field, a simple combination of references does not always realize any desired characteristics. Moreover, there is no evidence to indicate that the tapered shape of the balun structure 14 of Lebaric is effective when the balun structure 14 is formed outside of the insulating substrate 5 as a result of combination with Konishi.

In addition, the Office Action refers to Figs. 9 and 15 of Konishi. However, Fig. 9A shows only a chip antenna, and Fig. 9B shows only a circuit diagram of a circuit equivalent to the chip antenna illustrated in Fig. 9A (col. 6, lines 39-40). Therefore, Fig. 9 does not show any physical state of the ground pattern formed to be juxtaposed with the dielectric substrate. Moreover, there is no Fig. 15 in Konishi.

At least for these reasons, Applicant respectfully submits that claim 13 is patentably distinct from the applied art.

Fig. 14 is allowable at least for its dependence on allowable claim 13, as well as for the additional feature it recites. For example, Fig. 14 recites that the ground paten has a region to separate first and second dielectric substrates.

The Office Action refers to Fig. 6A for its allegation of this feature. However, Konishi discloses in Fig. 6A only one dielectric substrate 20 as shown in Fig. 4. Thus, Konishi does no teach or suggest that the ground paten has a region to separate first and second dielectric substrates.

Claim 15 recites features similar to those of claim 1. As discussed above, Lebaric does not teach or suggest this feature. Konishi does not overcome the deficiency. As such, even combined, Lebaric and Konishi do not teach or suggest every feature of claim 15.

Moreover, the Office Action alleges that Konishi discloses an RF circuit in Figs. 6B and 6C. However, as described at col. 6, lines 24-28 and col. 14, lines 4-18, Konishi does not disclose an RF circuit in Fig. 6B or 6C. As such, the Office Action's allegation is incorrect.

Accordingly, Applicant respectfully submits that claim 15 is patentably distinct from the applied art.

At least for the reasons discussed above, withdrawal of the rejection is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-15 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:KXH/tls

Date: October 3, 2005

Attachments:

Petition for Extension of Time  
Request for Continued Examination  
Information Disclosure Statement

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